

Amendments to the Claims

Please cancel claims 1-30 and add the following new claims.

Claim 31 (New). An isolated and essentially homogenous polypeptide having the amino acid sequence set forth in Figure 21 and SEQ ID NO: 33.

Claim 32 (New). An isolated and essentially homogenous polypeptide having an amino acid sequence which has at least 80% identity to the amino acid sequence set forth in Figure 21 and SEQ ID NO: 33.

Claim 33 (New). An isolated and essentially homogenous polypeptide having amino acids 21-428 of the amino acid sequence set forth in Figure 21 and SEQ ID NO: 33.

Claim 34 (New). An isolated and essentially homogenous polypeptide having an amino acid sequence which has at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Figure 21 and SEQ ID NO: 33.

Claim 35 (New). An enzyme preparation comprising a polypeptide having cellulase activity, wherein said polypeptide is selected from the group consisting of:

(i) a polypeptide comprising the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,

(ii) a polypeptide having at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,

(iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014

(iv) a polypeptide comprising amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33; and

(v) a polypeptide having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 36 (New). An enzyme preparation according to claim 35, wherein said polypeptide comprises the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 37 (New). An enzyme preparation according to claim 35, wherein said polypeptide has at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 38 (New). An enzyme preparation according to claim 35, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014.

Claim 39 (New). An enzyme preparation according to claim 35, wherein said polypeptide comprises amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 40 (New). An enzyme preparation according to claim 35, wherein said polypeptide has at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 41 (New). An enzyme preparation according to claim 35, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid molecule comprising the nucleic acid sequence set forth in Figure 21 (SEQ ID NO: 32); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 42 (New). An enzyme preparation according to claim 35, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with a nucleic acid sequence encoding a cellulase having 80% identity to amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 43 (New). An enzyme preparation according to claim 35, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with a nucleic acid sequence encoding amino acids 21-428 of the amino acid sequence set forth in Figure 21 and SEQ ID NO: 33; and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 44 (New). An enzyme preparation according to claim 35, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with a nucleic acid sequence encoding a cellulase having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Figure 21 and SEQ ID NO: 33; and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 45 (New). An enzyme preparation according to claim 35, wherein said polypeptide is isolated and essentially homogenous.

Claim 46 (New). An enzyme preparation according to claim 35, wherein said enzyme preparation comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus*, *Myriococcum*, *Sporotrichum*, *Myceliophthora* or *Chaetomium*.

Claim 47 (New). An enzyme preparation according to claim 46, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces*, *Myriococcum* sp. species represented by CBS 687.95, *Sporotrichum thermophile*, *Myceliophthora thermophila* or *Chaetomium thermophilum*.

Claim 48 (New). An enzyme preparation according to claim 47, wherein the fungus is *Melanocarpus albomyces* or *Myriococcum albomyces* CBS 685.95, *Myriococcum* sp. CBS 687.95, *Sporotrichum thermophile* CBS 688.95 or *Myceliophthora thermophila* CBS 689.95 or *Chaetomium thermophilum* CBS 730.95.

Claim 49 (New). An enzyme preparation according to claim 35, wherein the enzyme preparation is liquid.

Claim 50 (New). An enzyme preparation according to claim 35, wherein the enzyme preparation is dry.

Claim 51 (New). An enzyme preparation according to claim 35, wherein the enzyme preparation further comprises a surface active agent.

Claim 52 (New). A method for biostoning comprising adding an enzyme preparation comprising a polypeptide having cellulase activity to cotton containing fabric or garments, wherein said polypeptide is selected from the group consisting of:

- (i) a polypeptide comprising the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,
- (ii) a polypeptide having at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,
- (iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014,
- (iv) a polypeptide comprising amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33; and
- (v) a polypeptide having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 53 (New). A method according to claim 52, wherein said polypeptide comprises the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 54 (New). A method according to claim 52, wherein said polypeptide has at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 55 (New). A method according to claim 52, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014.

Claim 56 (New). A method according to claim 52, wherein said polypeptide comprises amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 57 (New). A method according to claim 52, wherein said polypeptide has at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 58 (New). A method according to claim 52, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid molecule comprising the sequence set forth in Figure 21 (SEQ ID NO: 32); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 59 (New). A method according to claim 52, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 80% identity to the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 60 (New). A method according to claim 52, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding amino acids 21-428 of the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 61 (New). A method according to claim 52, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 62 (New). A method according to claim 52, wherein said polypeptide is isolated and essentially homogenous.

Claim 63 (New). A method according to claim 52, wherein said enzyme preparation comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus*, *Myriococcum*, *Sporotrichum*, *Myceliophthora* or *Chaetomium*.

Claim 64 (New). A method of claim 63, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces*, *Myriococcum* sp. species represented by CBS 687.95, *Sporotrichum thermophile*, *Myceliophthora thermophila* or *Chaetomium thermophilum*.

Claim 65 (New). A method of claim 64, wherein the fungus is *Melanocarpus albomyces* or *Myriococcum albomyces* CBS 685.95, *Myriococcum* sp. CBS 687.95, *Sporotrichum thermophile* CBS 688.95 or *Myceliophthora thermophila* CBS 689.95 or *Chaetomium thermophilum* CBS 730.95.

Claim 66 (New). A method according to claim 52, wherein the enzyme preparation is liquid.

Claim 67 (New). A method according to claim 52, wherein the enzyme preparation is dry.

Claim 68 (New). A method according to claim 52, wherein the fabric or garments is denim.

Claim 69 (New). A method according to claim 52, wherein the enzyme preparation further comprises a surface active agent.

Claim 70 (New). A method for biofinishing comprising adding an enzyme preparation comprising a polypeptide having cellulase activity to textile materials like fabrics or garments or yarn, wherein said polypeptide is selected from the group consisting of:

(i) a polypeptide comprising the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,

(ii) a polypeptide having at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,

(iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014,

(iv) a polypeptide comprising amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33; and

(v) a polypeptide having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 71 (New). A method according to claim 70, wherein said polypeptide comprises the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 72 (New). A method according to claim 70, wherein said polypeptide has at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 73 (New). A method according to claim 70, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014.

Claim 74 (New). A method according to claim 70, wherein said polypeptide comprises amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 75 (New). A method according to claim 70, wherein said polypeptide has at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 76 (New). A method according to claim 70, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid molecule comprising the sequence set forth in Figure 21 (SEQ ID NO: 32); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 77 (New). A method according to claim 70, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 80% identity to the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 78 (New). A method according to claim 70, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding amino acids 21-428 of the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 79 (New). A method according to claim 70, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 80 (New). A method according to claim 70, wherein said polypeptide is isolated and essentially homogenous.

Claim 81 (New). A method according to claim 70, wherein said enzyme preparation comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus*, *Myriococcum*, *Sporotrichum*, *Myceliophthora* or *Chaetomium*.

Claim 82 (New). A method of claim 81, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces*, *Myriococcum* sp. species represented by CBS 687.95, *Sporotrichum thermophile*, *Myceliophthora thermophila* or *Chaetomium thermophilum*.

Claim 83 (New). A method of claim 82, wherein the fungus is *Melanocarpus albomyces* or *Myriococcum albomyces* CBS 685.95, *Myriococcum* sp. CBS 687.95, *Sporotrichum thermophile* CBS 688.95 or *Myceliophthora thermophila* CBS 689.95 or *Chaetomium thermophilum* CBS 730.95.

Claim 84 (New). A method according to claim 70, wherein the enzyme preparation is liquid.

Claim 85 (New). A method according to claim 70, wherein the enzyme preparation is dry.

Claim 86 (New). A method according to claim 70, wherein the textile materials are manufactured of natural cellulose containing fibers or manmade cellulose containing fibers or are mixtures thereof.

Claim 87 (New). A method according to claim 70, wherein the textile materials are blends of synthetic fibers and cellulose containing fibers.

Claim 88 (New). A method according to claim 70, wherein the enzyme preparation further comprises a surface active agent.

Claim 89 (New). A method for treating wood-derived pulp or fiber, comprising adding an enzyme preparation comprising a polypeptide having cellulase activity to wood-derived mechanical or chemical pulp or secondary fiber, wherein said polypeptide is selected from the group consisting of:

- (i) a polypeptide comprising the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,
- (ii) a polypeptide having at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,
- (iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014,
- (iv) a polypeptide comprising amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33; and
- (v) a polypeptide having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 90 (New). A method according to claim 89, wherein said polypeptide comprises the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 91 (New). A method according to claim 89, wherein said polypeptide has at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 92 (New). A method according to claim 89, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014.

Claim 93 (New). A method according to claim 89, wherein said polypeptide comprises amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 94 (New). A method according to claim 89, wherein said polypeptide has at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 95 (New). A method according to claim 89, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid molecule comprising the sequence set forth in Figure 21 (SEQ ID NO: 32); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 96 (New). A method according to claim 89, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 80% identity to the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 97 (New). A method according to claim 89, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding amino acids 21-428 of the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 98 (New). A method according to claim 89, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 99 (New). A method according to claim 89, wherein said polypeptide is isolated and essentially homogenous.

Claim 100 (New). A method according to claim 89, wherein said enzyme preparation comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus*, *Myriococcum*, *Sporotrichum*, *Myceliophthora* or *Chaetomium*.

Claim 101 (New). A method of claim 100, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces*, *Myriococcum* sp. species represented by CBS 687.95, *Sporotrichum thermophile*, *Myceliophthora thermophila* or *Chaetomium thermophilum*.

Claim 102 (New). A method of claim 101, wherein the fungus is *Melanocarpus albomyces* or *Myriococcum albomyces* CBS 685.95, *Myriococcum* sp. CBS 687.95, *Sporotrichum thermophile* CBS 688.95 or *Myceliophthora thermophila* CBS 689.95 or *Chaetomium thermophilum* CBS 730.95.

Claim 103 (New). A method according to claim 89, wherein the enzyme preparation is liquid.

Claim 104 (New). A method according to claim 89, wherein the enzyme preparation is dry.

Claim 105 (New). A method according to claim 89, wherein the enzyme preparation further comprises a surface active agent.

Claim 106 (New). A method for improving the quality of animal feed, comprising treating plant material with an enzyme preparation comprising a polypeptide having cellulase activity, wherein said polypeptide is selected from the group consisting of:

(i) a polypeptide comprising the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,

(ii) a polypeptide having at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33,

(iii) a polypeptide comprising the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014,

(iv) a polypeptide comprising amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33; and

(v) a polypeptide having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 107 (New). A method according to claim 106, wherein said polypeptide comprises the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 108 (New). A method according to claim 106, wherein said polypeptide has at least 80% identity to the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 109 (New). A method according to claim 106, wherein said polypeptide comprises the amino acid sequence encoded by the DNA insert contained in DSM 11025 or DSM 11014.

Claim 110 (New). A method according to claim 106, wherein said polypeptide comprises amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 111 (New). A method according to claim 106, wherein said polypeptide has at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Fig. 21 and SEQ ID NO: 33.

Claim 112 (New). A method according to claim 106, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid molecule comprising sequence set forth in Figure 21 (SEQ ID NO: 32); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 113 (New). A method according to claim 106, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 80% identity to the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 114 (New). A method according to claim 106, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding amino acids 21-428 of the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 115 (New). A method according to claim 106, wherein said enzyme preparation is obtained by a process comprising:

(i) culturing a host cell transformed with the nucleic acid sequence encoding a cellulase having at least 80% identity to amino acids 21-428 of the amino acid sequence set forth in Figure 21 (SEQ ID NO: 33); and

(ii) separating said host cell from the culture medium and obtaining the supernatant having cellulase activity.

Claim 116 (New). A method according to claim 106, wherein said polypeptide is isolated and essentially homogenous.

Claim 117 (New). A method according to claim 106, wherein said enzyme preparation comprises at least one cellulase of a fungal species belonging to a fungal genus selected from the group consisting of *Melanocarpus*, *Myriococcum*, *Sporotrichum*, *Myceliophthora* or *Chaetomium*.

Claim 118 (New). A method of claim 117, wherein the fungal species is *Melanocarpus albomyces*, *Myriococcum albomyces*, *Myriococcum* sp. species represented by CBS 687.95, *Sporotrichum thermophile*, *Myceliophthora thermophila* or *Chaetomium thermophilum*.

Claim 119 (New). A method of claim 118, wherein the fungus is *Melanocarpus albomyces* or *Myriococcum albomyces* CBS 685.95, *Myriococcum* sp. CBS 687.95, *Sporotrichum thermophile* CBS 688.95 or *Myceliophthora thermophila* CBS 689.95 or *Chaetomium thermophilum* CBS 730.95.

Claim 120 (New). A method according to claim 106, wherein the enzyme preparation is liquid.

Claim 121 (New). A method according to claim 106, wherein the enzyme preparation is dry.

Claim 122 (New). A method according to claim 106, wherein the enzyme preparation is a surface active agent.